

## **REMARKS**

### **Claim Amendments**

Claims 14-17 and 19-27 are pending. Claims 14, 15, 16 and 19 have been amended.

Claim 14 has been amended to delete the recitation "such that the degree of substitution is more than 5%". Claim 14 has also been amended to recite that the cross-linked hydrogel is formed "from the functional group portion of the hyaluronic acid derivative in solution under physiological conditions wherein the forming of a cross-linked hydrogel is not by photo-cross-linking." Support can be found in the specification, for example, at page 9, lines 7-9, page 30, line 7 through page 31, line 12 and throughout the Examples. Claim 14 has additionally been amended to recite the acronym for hyaluronic acid, HA.

Claim 15 has been amended to delete the recitation of "ammonia."

Claims 16 and 19 have been amended to delete the recitation of "arylazide."

No new matter has been added.

### **Rejection of Claims 14-17 and 19-27 Under 35 U.S.C. § 112, First Paragraph**

Claims 14-17 and 19-27 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

In order to expedite prosecution, applicants have deleted the recitation "such that the degree of substitution is more than 5%" from claim 14, thereby obviating the rejection. Withdrawal of the rejection is respectfully requested.

### **Rejection of Claims 14-17 and 19-27 Under 35 U.S.C. § 112, Second Paragraph**

Claims 14-17 and 19-27 are rejected under 35 U.S.C. § 112, second paragraph, as indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner states that it is not clear how ammonia is meant to be bonded to the side chain.

In order to expedite prosecution, applicants have deleted the recitation of "ammonia" in claim 15, thereby obviating the rejection. Withdrawal of the rejection is respectfully requested.

Rejection of Claims 14-17 and 19 Under 35 U.S.C. § 102(b)

Claims 14-17 and 19 are rejected under 35 U.S.C. §102(b) as anticipated by Guire *et al.* (U.S. Patent No. 5,512,329).

Claim 14, from which all remaining claims depend, has been amended to recite that, *inter alia*, formation of a cross-linked hyaluronic acid hydrogel "is not by photo-cross-linking." In contrast, the only method of cross-linking hyaluronic acid taught by Guire *et al.* is photo-cross-linking (see Example VIII). Moreover, there is no disclosure that Guire *et al.* cross-link hyaluronic acid under physiological conditions. Thus, Guire *et al.* do not anticipate the instant claims. Reconsideration and withdrawal of the rejection are respectfully requested.

Rejection of Claims 14-16, 19, 21-23 and 27 Under 35 U.S.C. § 103(a)

Claims 14-16, 19, 21-23 and 27 are rejected under 35 U.S.C. § 103(a) as obvious over Rhee *et al.* (U.S. Patent No. 5,510,418) and Righetto *et al.* (U.S. Patent No. 5,856,299).

The Examiner states that the claims, prior to the instant Amendment, "do not require that the moiety attached to the carboxyl group be involved in the crosslinking or that step c) occur *after* steps a) and b). Claim 14 has been amended to recite that the cross-linked hydrogel is formed "from the functional group portion of the hyaluronic acid derivative," where the functional group portion is substituted at the carbonyl carbon of glucuronic acid. The only method of cross-linking taught by Rhee *et al.* occurs via the amino groups of glycosaminoglycans (see column 24, line 48 through column 25, line 30). Righetto *et al.* do not teach any type of cross-linking, let alone crosslinking of hyaluronic acid. Thus, even if Rhee *et al.* is combined with Righetto *et al.*, the result does not teach or suggest the method of applicants' claims. Moreover, there is no teaching or suggestion that crosslinking via the carboxylic acid group of glucuronic acid under physiological conditions would be successful. Therefore, the instant claims are not *prima facie* obvious over the cited art. Reconsideration and withdrawal of the rejection are respectfully requested.

Rejection of Claims 14-16 and 19-27 Under 35 U.S.C. § 103(a)

Claims 14-16 and 19-27 are rejected under 35 U.S.C. § 103(a) as obvious over Rhee *et al.* (U.S. Patent No. 5,510,418) and Righetto *et al.* (U.S. Patent No. 5,856,299) in view of Hunziker *et al.* (U.S. Patent No. 5,270,300) and Hohenadl *et al.* (*J. Biol. Chem.*, 1995). The

Examiner states only that applicant's arguments filed December 1, 2005 were fully considered, but does not respond to the arguments.


Rhee *et al.* and Righetto *et al.* are discussed above. Briefly, Rhee *et al.* and Righetto *et al.* do not render the instant claims *prima facie* obvious because they do not teach every limitation of the claims. Hunziker *et al.* and Hohenadl *et al.* do not remedy the deficiencies of Rhee *et al.* and Righetto *et al.* discussed above because neither reference teaches cross-linking hyaluronic acid. Reconsideration and withdrawal of the rejection are respectfully requested.

#### Conclusion

For the above reasons, applicants request that the Examiner withdraw her rejections and allow the currently pending claims to issue.

Respectfully submitted,

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